

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act, as amended, (33 U.S.C. §§1251 et seq.; the “CWA”),

New Hampshire Fish and Game Department

is authorized to discharge from a facility located at

**New Hampton State Fish Hatchery
State Highway (Route) 132 and Main Street
New Hampton, New Hampshire**

to receiving water named

**Tributary to the Pemigewasset River, know locally as Dickerman Brook
(Hydrologic Basin Code: 01070006)**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on August 1, 2004.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on August 28, 1974.

This permit consists of **20** pages in Part I including effluent limitations, monitoring requirements, etc., and **35** pages in Part II including General Conditions and Definitions.

Signed this 27th day of May, 2004

/s/

SIGNATURE ON FILE

Linda M. Murphy, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency (USEPA)
EPA-New England
Boston, Massachusetts

Part I.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 1.a. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number 005 fish hatchery overflow water from Raceway A-2 into Dickerman Brook, upstream of Dickerman Pond. In addition, this outfall can be consolidated with any or all of the outfalls 006 and 008 as long as done in conformance with footnote 1 on page 11 of this permit. Such discharges shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken at a location that provides a representative analysis of the effluent.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow; MGD	-----	-----	Report	-----	1/Week	Weir calculations or other approved method ²
TSS	Report lbs/day ³	Report lbs/day ³	10 mg/l	15 mg/l	1/Month ⁴	24-Hour Composite ⁵
BOD ₅	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Phosphorus as P	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Nitrogen as N	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Fish Biomass on Hand; lbs	Report	-----	-----	-----	Monthly	Calculation ⁷
Fish Feed Used; lbs	Report	-----	-----	-----	Monthly	Calculation
Efficiency of Fish Feed Used; Percent	Report	-----	-----	-----	Monthly	Calculation
pH Range ⁸	6.5 to 8.0 Standard Units (See Part I.E.1.a.)				1/Week	Grab
Dissolved Oxygen ⁹ ; mg/l	-----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Dissolved Oxygen Saturation ⁹ ; Percent	-----	-----	-----	Report	1/Month (Formalin Absent)	Calculation
Water Temperature ⁹ ;degrees Fahrenheit	-----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Formaldehyde ¹⁰ ; mg/l	-----	-----	1.61	4.58	1/Week (Formalin Present)	Grab
Dissolved Oxygen ¹⁰ ; mg/l	-----	-----	-----	Report	1/Week (Formalin Present)	Grab

NOTE: See pages 11 through 13 for explanation of the various footnotes.

Part I.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 1.b. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number 006 fish hatchery overflow water from Raceway A-3 into Dickerman Brook, upstream of Dickerman Pond. In addition, this outfall can be consolidated with any or all of the outfalls 005 and 008 as long as done in conformance with footnote 1 on page 11 of this permit. Such discharges shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken at a location that provides a representative analysis of the effluent.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow; MGD	-----	-----	Report	-----	1/Week	Weir calculations or other approved method ²
TSS	Report lbs/day ³	Report lbs/day ³	10 mg/l	15 mg/l	1/Month ⁴	24-Hour Composite ⁵
BOD ₅	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Phosphorus as P	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Nitrogen as N	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Fish Biomass on Hand; lbs	Report	-----	-----	-----	Monthly	Calculation ⁷
Fish Feed Used; lbs	Report	-----	-----	-----	Monthly	Calculation
Efficiency of Fish Feed Used; Percent	Report	-----	-----	-----	Monthly	Calculation
pH Range ⁸	6.5 to 8.0 Standard Units (See Part I.E.1.a.)				1/Week	Grab
Dissolved Oxygen ⁹ ; mg/l	-----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Dissolved Oxygen Saturation ⁹ ; Percent	-----	-----	-----	Report	1/Month (Formalin Absent)	Calculation
Water Temperature ⁹ ;degrees Fahrenheit	-----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Formaldehyde ¹⁰ ; mg/l	-----	-----	1.61	4.58	1/Week (Formalin Present)	Grab
Dissolved Oxygen ¹⁰ ; mg/l	-----	-----	-----	Report	1/Week (Formalin Present)	Grab

NOTE: See pages 11 through 13 for explanation of the various footnotes.

Part I.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 1.c. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number 008 fish hatchery overflow water from Raceway A-5 (also, could contain overflow water from Hatchery Building) into Dickerman Brook, upstream of Dickerman Pond. Such discharges shall be limited and monitored by the permittee as specified below. In addition, this outfall can be consolidated with any or all of the outfalls 005 and 006 as long as done in conformance with footnote 1 on page 11 of this permit. Samples taken in compliance with the monitoring requirements specified below shall be taken at a location that provides a representative analysis of the effluent.

When Raceway A-5 is not in use, the discharge of rainwater and snowmelt is allowed without monitoring in the same manner as outfalls listed and described in Part I.A.1.i. on page 10 of this permit.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow; MGD	-----	-----	Report	-----	1/Week	Weir calculations or other approved method ²
TSS	Report lbs/day ³	Report lbs/day ³	10 mg/l	15 mg/l	1/Month ⁴	24-Hour Composite ⁵
BOD ₅	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Phosphorus as P	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Nitrogen as N	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Fish Biomass on Hand; lbs	Report	-----	-----	-----	Monthly	Calculation ⁷
Fish Feed Used; lbs	Report	-----	-----	-----	Monthly	Calculation
Efficiency of Fish Feed Used; Percent	Report	-----	-----	-----	Monthly	Calculation
pH Range ⁸	6.5 to 8.0 Standard Units (See Part I.E.1.a.)				1/Week	Grab
Dissolved Oxygen ⁹ mg/l	-----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Dissolved Oxygen Saturation ⁹ ; Percent	----	-----	-----	Report	1/Month (Formalin Absent)	Calculation
Water Temperature ⁹ ;degrees Fahrenheit	----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Formaldehyde ¹⁰ ; mg/l	-----	-----	1.61	4.58	1/Week (Formalin Present)	Grab
Dissolved Oxygen ¹⁰ ; mg/l	-----	-----	-----	Report	1/Week (Formalin Present)	Grab

NOTE: See pages 11 through 13 for explanation of the various footnotes.

Part I.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1.d. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number 010 fish hatchery overflow water from Circular Tank B into Dickerman Brook, downstream of Dickerman Pond. Such discharges shall be limited and monitored by the permittee as specified below. In addition, this outfall can be consolidated with any or all of the outfalls 013 through 027 as long as done in conformance with footnote 1 on page 11 of this permit. Samples taken in compliance with the monitoring requirements specified below shall be taken at a location that provides a representative analysis of the effluent.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow; MGD	-----	-----	Report	-----	1/Week	Container calculations or other approved method ²
TSS	Report lbs/day ³	Report lbs/day ³	10 mg/l	15 mg/l	1/Month ⁴	24-Hour Composite ⁵
BOD ₅	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Phosphorus as P	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Nitrogen as N	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Fish Biomass on Hand; lbs	Report	-----	-----	-----	Monthly	Calculation ⁷
Fish Feed Used; lbs	Report	-----	-----	-----	Monthly	Calculation
Efficiency of Fish Feed Used; Percent	Report	-----	-----	-----	Monthly	Calculation
pH Range ⁸	6.5 to 8.0 Standard Units (See Part I.E.1.a.)				1/Week	Grab
Dissolved Oxygen ⁹ ; mg/l	-----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Dissolved Oxygen Saturation ⁹ ; Percent	-----	-----	-----	Report	1/Month (Formalin Absent)	Calculation
Water Temperature ⁹ ;degrees Fahrenheit	-----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Formaldehyde ¹⁰ mg/l	-----	-----	1.61	4.58	1/Week (Formalin Present)	Grab
Dissolved Oxygen ¹⁰ ; mg/l	-----	-----	-----	Report	1/Week (Formalin Present)	Grab

NOTE: See pages 11 through 13 for explanation of the various footnotes.

Part I.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 1.e. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge from outfall serial numbers 013 through 016 and 018 through 026 fish hatchery overflow water from 13 Circular Tanks C into Dickerman Brook, downstream of Dickerman Pond. **Such discharges shall be limited and monitored by the permittee as specified below paying particular attention to the requirements in footnote 11 on pages 11 and 12 of this permit.** Samples taken in compliance with the monitoring requirements specified below shall be taken at a location that provides a representative analysis of the effluent.

In addition, any or all of these outfalls can be consolidated with each other or with any or all of the outfalls 010, 017 and 027 as long as done in conformance with footnote 1 on page 11 of this permit.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow; MGD	-----	-----	Report	-----	1/Week	Container calculations or other approved method ²
TSS	Report lbs/day ³	Report lbs/day ³	10 mg/l	15 mg/l	1/Month ⁴	24-Hour Composite ⁵
BOD ₅	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Phosphorus as P	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Nitrogen as N	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Fish Biomass on Hand; lbs	Report	-----	-----	-----	Monthly	Calculation ⁷
Fish Feed Used; lbs	Report	-----	-----	-----	Monthly	Calculation
Efficiency of Fish Feed Used; Percent	Report	-----	-----	-----	Monthly	Calculation
pH Range ⁸	6.5 to 8.0 Standard Units (See Part I.E.1.a.)				1/Week	Grab
Dissolved Oxygen ⁹ ; mg/l	-----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Dissolved Oxygen Saturation ⁹ ; Percent	-----	-----	-----	Report	1/Month (Formalin Absent)	Calculation
Water Temperature ⁹ ;degrees Fahrenheit	-----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Formaldehyde ¹⁰ ; mg/l	-----	-----	1.61	4.58	1/Week (Formalin Present)	Grab
Dissolved Oxygen ¹⁰ ; mg/l	-----	-----	-----	Report	1/Week (Formalin Present)	Grab

NOTE: See pages 11 through 13 for explanation of the various footnotes.

Part I.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1.f. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number 017 fish hatchery overflow water from two Circular Tanks C into Dickerman Brook, downstream of Dickerman Pond. **Such discharges shall be limited and monitored by the permittee as specified below paying particular attention to the requirements in footnote 11 on pages 11 and 12 of this permit.** Samples taken in compliance with the monitoring requirements specified below shall be taken at a location that provides a representative analysis of the effluent.

In addition, this outfall can be consolidated with any or all of the outfalls 010, 013-016, 018-026 and 027 as long as done in conformance with footnote 1 on page 11 of this permit.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow; MGD	-----	-----	Report	-----	1/Week	Container calculations or other approved method ²
TSS	Report lbs/day ³	Report lbs/day ³	10 mg/l	15 mg/l	1/Month ⁴	24-Hour Composite ⁵
BOD ₅	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Phosphorus as P	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Nitrogen as N	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Fish Biomass on Hand; lbs	Report	-----	-----	-----	Monthly	Calculation ⁷
Fish Feed Used; lbs	Report	-----	-----	-----	Monthly	Calculation
Efficiency of Fish Feed Used; Percent	Report	-----	-----	-----	Monthly	Calculation
pH Range ⁸	6.5 to 8.0 Standard Units (See Part I.E.1.a.)				1/Week	Grab
Dissolved Oxygen ⁹ ; mg/l	-----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Dissolved Oxygen Saturation ⁹ ; Percent	-----	-----	-----	Report	1/Month (Formalin Absent)	Calculation
Water Temperature ⁹ ;degrees Fahrenheit	-----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Formaldehyde ¹⁰ mg/l	-----	-----	1.61	4.58	1/Week (Formalin Present)	Grab
Dissolved Oxygen ¹⁰ ; mg/l	-----	-----	-----	Report	1/Week (Formalin Present)	Grab

NOTE: See pages 11 through 13 for explanation of the various footnotes.

Part I.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 1.g. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number 027 fish hatchery overflow water from Raceway C (also, could contain overflow water from Raceway B) into Dickerman Brook, downstream of Dickerman Pond. In addition, this outfall can be consolidated with any or all of the outfalls 010 and 013 through 026 as long as done in conformance with footnote 1 on page 11 of this permit. Such discharges shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken at a location that provides a representative analysis of the effluent.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow; MGD	-----	-----	Report	-----	1/Week	Weir calculations or other approved method ²
TSS	Report lbs/day ³	Report lbs/day ³	10 mg/l	15 mg/l	1/Month ⁴	24-Hour Composite ⁵
BOD ₅	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Phosphorus as P	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Total Nitrogen as N	Report lbs/day ³	Report lbs/day ³	Report mg/l	Report mg/l	2/Year ⁶	24-Hour Composite ⁵
Fish Biomass on Hand; lbs	Report	-----	-----	-----	Monthly	Calculation ⁷
Fish Feed Used; lbs	Report	-----	-----	-----	Monthly	Calculation
Efficiency of Fish Feed Used; Percent	Report	-----	-----	-----	Monthly	Calculation
pH Range ⁸	6.5 to 8.0 Standard Units (See Part I.E.1.a.)				1/Week	Grab
Dissolved Oxygen ⁹ ; mg/l	-----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Dissolved Oxygen Saturation ⁹ ; Percent	----	-----	-----	Report	1/Month (Formalin Absent)	Calculation
Water Temperature ⁹ ;degrees Fahrenheit	----	-----	-----	Report	1/Month (Formalin Absent)	Grab
Formaldehyde ¹⁰ ; mg/l	-----	-----	1.61	4.58	1/Week (Formalin Present)	Grab
Dissolved Oxygen ¹⁰ ; mg/l	-----	-----	-----	Report	1/Week (Formalin Present)	Grab

NOTE: See pages 11 through 13 for explanation of the various footnotes.

Part I.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 1.h. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number 028 routine maintenance water (pipe flushing) from the pipeline (conveys water from Dickerman Pond to the various rearing units in the lower hatchery) into Dickerman Brook, downstream of Dickerman Pond. Such discharges shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken at a location that provides a representative analysis of the effluent.

This discharge shall be free of debris such as sticks, twigs, leaves, paper, plastics, dead aquatic animals, etc.

Disposal of debris and aquatic organisms from this discharge shall be in accordance with **Part IA.8.** on page 14 of this permit.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Maximum	Maximum <u>Daily</u>	Measurement <u>Frequency</u>	Sample <u>Type</u>
Flow; MGD	-----	Report	Each Event	Estimate Total Daily
TSS	-----	Report	Each Event	Grab
pH Range ⁸	6.5 to 8.0 Standard Units (See Part LE.1.a.)		Each Event	Grab
Discharge Event; days	Report	-----	1/Month	Report Total Number of Days ¹²

NOTE: See pages 11 through 13 for explanation of the various footnotes.

Part I.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1.i. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge miscellaneous waters from each of the seven outfalls listed in the table below, as specified under “*Type of Discharge Water*” into the Dickerman Brook, upstream (US) or downstream (DS) of Dickerman Pond without monitoring, on an as need basis. Aside from allowing the discharge of rainwater and snowmelt from units not in use, the specific intent of this authorization is to allow for a discharge from the “*Discharging Unit*” shown in the table below for the sole purpose of emptying it of incidental quantities of water being careful not to incorporate any accumulated bottom sediments and/or debris in the discharge.

Outfall Number	Receiving Water	Discharging Unit	Type of Discharge Water
001	Dickerman (US) Brook	Pipeline(s)	Spring water from Spring Reservoir and/or Springs southwest of State Highway 132
003	Dickerman (US) Brook	Distribution Box at Hatchery Building	Only residual overflow water contained in distribution box
006	Dickerman (US) Brook	Raceway A-3	Rainwater and snowmelt from Raceway A-3 when raceway not in use
009	Dickerman (DS) Brook	Raceway B	Rainwater and snowmelt from Raceway B when raceway not in use
010	Dickerman (DS) Brook	Circular Tank B	Rainwater and snowmelt from Circular Tank B when tank not in use
011	Dickerman (DS) Brook	Header Box at Raceway C and Pipeline(s) to Raceway C	Water from Dickerman Pond, and when Raceway B in use, also only residual overflow water contained in Header Box and/or Pipeline(s)
012	Dickerman (DS) Brook	Distribution Area at head of Raceway C	Rainwater and snowmelt from Distribution Area at head of Raceway C when raceway not in use

EXPLANATION OF FOOTNOTES APPLICABLE TO Parts I.A.1.a. - h. on pages 2 - 9

- (1) If the permittee wishes to consolidate any of the outfalls in the upper hatchery with each other, and/or consolidate any of the outfalls in the lower hatchery with each other, it shall submit a written plan and schedule describing the planned consolidation to EPA-New England and NHDES-WD at least 45 days in advance of any outfall consolidation. Outfalls available for consolidation in the upper hatchery are 005, 006 and 008; whereas, those in the lower hatchery are 010 and 013 through 027. Such a plan would represent a cause for a minor permit modification, pursuant to 40 Code of Federal Regulations (CFR) Section 122.63(e)(2), by which EPA-New England would eliminate the sampling requirements for the outfall(s) being eliminated and update the effluent limitations and monitoring requirements page for the outfall to which those rearing units will now be discharging through. No other limit, monitoring requirement, measurement frequency or sample type will be altered.
- (2) In lieu of an effluent flow meter, the designated method (weir or container calculations) may be used to report effluent flow. To obtain approval for flow measurement method(s) other than the designated method, the permittee shall submit a written description of the proposed method(s) to EPA-New England and receive written authorization via certified letter before proceeding.
- (3) For each outfall, the flows used to report mass loadings are as follows: Raceway A-2 is 0.22 MGD; Raceway A-3 is 0.55 MGD; Raceway A-5 is 0.65 MGD; each individual Circular C Tank is 0.043 MGD; combined Circular C Tank's Outfall 017 is 0.086 MGD; and Raceway C is 0.86 MGD. If any outfalls are consolidated as per footnote 1 above, the permittee shall increase the flow in the consolidated outfall, based on the outfall flows listed above, to properly report mass loadings.
- (4) Each monthly sample for TSS analysis shall be collected on or about the 15th day of the month (plus or minus two days) and timed to capture the discharge from a typical fish feeding event.
- (5) Through November 30, 2005, the permittee is allowed to perform grab sampling as long as it is performed during a typical fish feeding event.
- (6) Water samples for BOD₅, Total Nitrogen and Total Phosphorus shall be collected and tests completed during the months of May and August each year from the sample collected for the monthly TSS determination (See footnote 4 above). Test results are to be submitted with the appropriate monthly Discharge Monitoring Report (DMR).

- (7) The permittee shall submit a written report with its monthly DMR of any significant import and/or export of fingerling or greater size fish which occurred during the reporting month. The report shall include the dates and quantities of each import and/or export. In lieu of this written report, a Zerox copy of the hatchery's monthly operational form showing the imports and/or exports of various fish sizes will suffice. This report excludes any fish mortality data as that is covered separately under **Part I.A.6**.
- (8) Limit is a State Certification Requirement.
- (9) Each monthly sample for **Dissolved Oxygen (DO)** shall be collected on or about the 15th day of each month (plus or minus two days) to represent the average for the month. However, if formalin is discharged to the culture water within this sampling window, sample collection shall be performed after a minimum postponement of two hours following cessation of the formalin discharge. For each sample of DO collected, the **Water Temperature** shall also be measured and the **Percent Saturation of DO** determined for each DO sample.
- (10) Sampling for **Formaldehyde** shall occur after any discharge of **Formalin** to the hatchery's culture water, to capture the maximum concentration of that application after accounting for its detention time through the raceways, tanks and piping networks. A sample for **DO** shall be collected concurrently with that for Formaldehyde and reported under the appropriate DO column on the monthly DMR. Formaldehyde shall be tested using Method 1667, Revision A, which has a minimum quantification level (ML) of 50 micrograms per liter (µg/l). In general, the ML is defined as "the level at which the entire analytical system shall give recognizable signal and acceptable calibration points." Specifically, it's defined as the concentration in a sample equivalent to the concentration of the lowest calibration standard analyzed in a specific analytical procedure assuming that all the method-specific sample weights, volumes, and processing steps have been followed.

Alternate analytical method(s) shall be approved by EPA-New England at the permittee's written request as long as the permittee utilizes method(s) that obtain MLs that are equal to or less than those referenced for Method 1667, Revision A, above. Such a request will be considered a minor modification to the permit.

- (11) Through November 30, 2005, the 15 circular tank discharges authorized in **Parts I.A.1.e** and **1.f** (outfall numbers 013-026), shall be sampled and the results reported according to the interim sampling and reporting procedures described below. After November 30, 2005, sampling of each discharge (outfall numbers 013-026) shall be conducted according to the schedules in **Parts I.A.1.e** and **1.f**.

Interim Sampling and Reporting Procedures

Each month, the permittee shall determine which three of the fourteen outfalls are receiving the greatest quantity of fish food and those outfalls shall be sampled according to the requirements listed in **Part I.A.1.e** and/or 1.f. These data will be accepted as representative of the discharge from all 15 tanks. Should a violation of the TSS limitations occur at any of the three sampled discharges, the permittee shall submit to EPA and NHDES a written report detailing/documenting the cause of the TSS violation, steps taken to prevent further violations, and an analysis of whether the conditions which caused the TSS violation at the sampled discharge likely caused violations of the discharges (outfalls) which were not sampled that month.

For the 11 outfalls not sampled in each month, the permittee shall report the flow, fish biomass on hand, fish feed used, and efficiency of fish feed used on the monthly discharge monitoring reports. Also, if formalin is used in any of these tanks during a month, the outfall shall be sampled for formaldehyde and dissolved oxygen as required in footnote 8 above and also reported on the DMR for that month.

- (12) Discharge event is the total number of days a discharge occurs during the month. The No Discharge Code (NODI) is entered on the monthly DMR form when there is no discharge.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Continued)

2. The discharge shall not cause a violation of the water quality standards of the receiving water.
3. The discharge shall be adequately treated to insure that the surface water remains free from pollutants in concentrations or combinations that settle to form harmful deposits, float as foam, debris, scum or other visible pollutants. It shall be adequately treated to insure that the surface waters remain free from pollutants which produce odor, color, taste or turbidity in the receiving waters which is not naturally occurring and would render it unsuitable for its designated uses.
4. Toxic Controls
 - a. No components of the effluent shall result in any demonstrable harm to aquatic life or violate any water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards, with the permittee being so notified.
 - b. The permittee shall not discharge into the receiving water any pollutant or combination of pollutants in toxic amounts.
5. This permit shall be modified, or alternatively, revoked and reissued, to comply with any

applicable standard or limitation promulgated or approved under sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the “CWA”, if the effluent standard or limitation so issued or approved:

- a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b. Controls any pollutants not limited in the permit.

If the permit is modified or reissued, it shall be revised to reflect all currently applicable requirements of the “CWA”.

6. The permittee shall notify EPA-New England and the NHDES-WD within 24-hours upon the occurrence of a water quality induced mortality of greater than 25 percent in any aquatic species under culture at the facility in accordance with reporting requirements in General Conditions Part II.D.1.e.
7. Any change of the fish species to be raised at this facility or development stage to be attained will require written notification to EPA-New England and to the NHDES-WD and, possibly, a permit modification.
8. At outfall 028, all live fish and other aquatic organisms found in the discharge shall be returned to the natural habitat. In addition, all dead aquatic organisms, such as crayfish, fish, and frogs, etc. as well as all solid materials, such as sticks, twigs, leaves, paper, plastics, etc. found in the discharge shall be disposed of in an appropriate environmental manner.
9. There shall be no direct discharge of “cleaning water” flows from any rearing unit (raceway, circular tank, and/or hatchery house). However, the discharge of “cleaning water” to a settling pond, lagoon, empty raceway and/or clarifier for the purposes of settling solids including the temporary storage of those solids followed by the discharge of any decant water that accumulates above those solids and/or any water that flows slowly over those solids is allowed as long as that decant and/or overflow water discharges through a currently permitted outfall (**Part I.A.1.a.-h.**).
10. Any hypochlorite solution applied to the surface of any rearing equipment exposed to culture water must be neutralized prior to that equipment being exposed to culture water.
11. There shall be no discharge of iodine and/or phosphoric acid solution(s) to the rearing water or to the receiving water.

12. Medication

- a. The permittee shall use only medications and disease control chemicals in dosages and combinations as approved by the U.S. Food and Drug Administration (USFDA), the U.S. Fish and Wildlife Service (USF&WS), the New Hampshire Fish and Game Department (NHF&GD) and the U.S. Environmental Protection Agency (USEPA).
- b. The permittee shall use these medications and chemicals as needed to treat a disease or disease-causing conditions. The prophylactic use of disease control medications is prohibited. EPA-New England will defer to the rulings/guidelines of the USFDA in determining at what point in time a given use becomes prophylactic.
- c. The permittee shall notify (in accordance with General Conditions Part II.D.1 of this permit) within 24 hours by telephone and within five days in writing to the Director, NPDES Permit Program in the Office of Ecosystem Protection at EPA-New England; the Director, NHDES-WD; the USF&WS; and the appropriate section(s) within the NHF&GD of the emergency use or the immediate intended use of any medication and/or chemical not specifically identified in the implemented version of the Best Management Practices Plan (**PLAN**) described below. For each reportable situation, the permittee shall provide the information on each chemical and/or medication as required in **Part I.A.13.e.iv.** described below. Furthermore, this notification requirement shall also apply to any medication and/or chemical that exceeds its dosage concentration, and frequency and duration of application as specifically identified in the implemented version of said **PLAN** described below.
- d. The USEPA will notify the permittee when the use of a specific chemical described in **Part I.A.12.c.** immediately above is unacceptable or that the dosage concentration or frequency level must be modified to protect the aquatic community in any downstream receiving waters such as Pemigewasset River.

13. Best Management Practices (BMP) Plan

- a. A BMP Plan, hereinafter called the **PLAN**, shall be developed which establishes Best Management Practices to be followed in operating the facility, cleaning the culture tanks/raceways, screens and other equipment and disposing of any solid waste. The purpose of the **PLAN** is to identify and to describe the practices which minimize the amounts of pollutants (biological, chemical and medicinal) discharged to surface waters.
- b. The **PLAN** shall be completed, signed and certified in accordance with General Conditions Part II.D.2. of this permit. The **PLAN** shall be developed and implemented by the permittee within 90 days of the permit's effective date. The **PLAN** shall be modified as necessary during the life of the permit and a current copy shall be maintained at the facility for inspection by the USEPA and/or the NHDES-WD. A

current version of that **PLAN** shall be submitted to EPA and/or NHDES-WD upon their request.

- c. The permittee shall notify USEPA and the NHDES-WD in writing that the **PLAN** has been completed and addresses all required elements described in this permit. In that letter, the permittee shall include the specific date the **PLAN** was implemented. On that specific date, the **PLAN** becomes an enforceable element of the permit.
- d. The permittee shall amend the **PLAN** within 30 days following a change in facility design, construction, operation, or maintenance which affects the potential for the discharge of pollutants into surface waters or after the USEPA and/or the NHDES-WD determine certain changes are required following a permit limit/**PLAN** exceedance, facility inspection, or review of the **PLAN**. The permittee shall place in the **PLAN** written documentation of each amended change along with a brief description stating the reason for said amendment including the date the change triggering said amendment occurred. In that letter, the permittee shall also state the specific date the amended **PLAN** was implemented.
- e. The **PLAN** shall include, as a minimum, the following items:
 - i. During operations:
 - (1) A description of the pollution control equipment or methods used to enhance solids collection.
 - (2) A description of how excessive solids buildup will be identified to trigger more frequent cleaning of the culture tanks/raceways and equipment thereby preventing more suspended and dissolved materials in the discharge.
 - (3) A description of the feeding methods used to minimize the amount of feed residuals in the discharge.
 - (4) A description of the preventative maintenance program for cleaning equipment so that delays in cleaning due to equipment failures are avoided.
 - (5) A description of the analysis and model (if one is used) used to determine the time of maximum concentration based on dosage, injection point, facility flow, etc.

ii. Biological Pollution

- (1) Describe in detail the precautions that will be exercised by the facility to prevent aquatic organisms that are not indigenous or naturalized to New Hampshire waters from becoming established in the local surface waters.
- (2) A description for the storage and treatment of discharges to prevent biological pollution (non-indigenous organisms including fish parasites and fish pathogens and dead or dying fish) from entering the receiving water when the cultured fish population or a portion thereof are showing signs of stress.

iii. Cleaning of culture tanks/raceways and other equipment:

- (1) Describe in detail how the accumulated solids are to be removed, dewatered and disposed.
- (2) Describe where the removed material is to be placed and the techniques used to prevent it from re-entering the surface waters from any on-site storage. If the material is removed from the site, describe who received the material and it's method of disposal and/or reuse.

iv. Medications and chemicals used in the facility

- (1) List in the **PLAN** all medications and chemicals that are expected to be used in the culture tanks/raceways. For each medication or chemical, identify:
 - (a) Product name and manufacturer of the medication or chemical.
 - (b) The chemical formulation of the medication or chemical.
 - (c) The purpose or use of the chemical.
 - (d) The dosage concentration, frequency of application (hourly, daily, etc.) and the duration (hours, days) of treatment.
 - (e) The method of application.
 - (f) Material Safety Data Sheets (MSDS), Chemical Abstracts Service Registry number for each active therapeutic ingredient.

- (g) The method or methods used to detoxify the wastewater prior to discharge following application of chemical and/or medication.
 - (h) Information on the persistence and toxicity of each medication or chemical.
 - (i) Information on the USFDA approval for the use of said medication or chemical on fish or fish related products used for human consumption.
 - (j) Available aquatic toxicity data for each medication or chemical used (vendor data, literature data, etc.); LC_{50} at 48 and/or 96 hours and No Effect Level (NOEL) concentrations for typical aquatic organisms (salmon, trout, daphnia, fathead minnow, etc.).
- v. Personnel Training
 - (1) Describe the training to be provided for employees to assure they understand the goals and objectives of the BMPs, the requirements of the NPDES permit and their individual responsibilities for complying with the goals and objectives of the **PLAN** and the NPDES permit.
- vi. BMP Records Maintenance
 - (1) Records of the calculations done at the time of sampling must be included with the **PLAN** in order that EPA-New England and/or NHDES-WD employee/inspector can verify sampling was properly conducted. In addition, records of all medicinal and chemical usage (i.e., for each occurrence) at the facility shall be recorded and filed in the **PLAN** to include the dosage concentration, frequency of application (hourly, daily, etc.) and the duration (hours, days) of treatment, and the method of application.

B. SPECIAL CONDITIONS

pH Limit Adjustment

The permittee may submit a written request to the EPA-New England requesting a change in the permitted pH limit range to be not less restrictive than 6.0 to 9.0 Standard Units. The permittee's written request must include the State's approval letter containing an original signature (no copies). The State's letter shall state that the permittee has demonstrated to the State's satisfaction that as long as discharges to the receiving water from a specific outfall are within a specific numeric pH range the naturally occurring receiving water pH will be unaltered. That letter must specify for each outfall the associated numeric pH limit range. Until written notice is received by certified mail from the EPA-New England indicating the pH limit range has been changed, the permittee is required to meet the permitted pH limit range in the respective permit.

C. REOPENER CLAUSE

This permit may be modified, or alternatively, revoked and reissued if, in the future: (1) an analysis of a Total Maximum Daily Load (TMDL) or any other water-quality study of Dickerman Brook, Dickerman Pond and/or Pemigewasset River performed by NHDES-WD and/or EPA-New England demonstrates the need for more stringent pollutant limits; and (2) nitrogen and/or phosphorus monitoring data demonstrates a reasonable potential to equal or exceed federal and/or state surface water-quality regulations either currently existing or those adopted in the future. Section 301(b)(1)(C) requires that a permit include all limits necessary to protect federal and state surface water-quality regulations. Results from a TMDL or any other water-quality study, not available at the time of permit reissuance, are considered "New Information" and the permit may be modified as provided in 40 CFR Section 122.62(a)(2).

D. MONITORING AND REPORTING CONDITIONS

Monitoring results shall be summarized for each calendar month and reported on separate Discharge Monitoring Report Form(s) (DMRs) postmarked no later than the 15th day of the month following the completed reporting period.

1. Signed and Dated original DMRs and all other reports or notifications required herein or in **Part II**, shall be submitted to the Director at the following address:

U.S. Environmental Protection Agency
Water Technical Unit (SEW)
P.O. Box 8127
Boston, Massachusetts 02114-8127

2. Duplicate signed copies of all reports required in Section 1. immediately above shall be submitted to the State at:

New Hampshire Department of Environmental Services
Water Division
Wastewater Engineering Bureau
29 Hazen Drive, P.O. Box 95
Concord, New Hampshire 03302-0095

All verbal reports required in **Parts I** and **II** of this permit shall be made to both EPA-New England and to NHDES-WD.

E. STATE PERMIT CONDITIONS

1. The permittee shall comply with the following conditions which are included as State Certification requirements.
 - a. The pH range of 6.5-8.0 Standard Units (S.U.) must be achieved in the final effluent unless the permittee can demonstrate to NHDES-WD: (1) that the range should be widened due to naturally occurring conditions in the receiving water or (2) that the naturally occurring receiving water pH is not significantly altered by the permittee's discharge. The scope of any demonstration project must receive prior approval from NHDES-WD. In no case, shall the above procedure result in pH limits outside of the range of 6.0 to 9.0 S.U., which is the federal effluent limitation guideline regulation for pH for secondary treatment and is found in 40 CFR §133.102(c).
 - b. The permittee shall not at any time, either alone or in conjunction with any person or persons, cause directly or indirectly the discharge of waste into the said receiving water unless it has been treated in such a manner as will not lower the legislated water quality classification or interfere with the uses assigned to said water by the New Hampshire Legislature (RSA 485-A:12).
2. This NPDES Discharge Permit is issued by the EPA-New England under Federal and State law. Upon final issuance by the EPA-New England, the NHDES-WD may adopt this permit, including all terms and conditions, as a State permit pursuant to RSA 485-A:13.

Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of the Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation.